

Applicant : Satoshi Seo et al.
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Attorney's Docket No.: 12732-160001/US6524

Amendments to the Claims

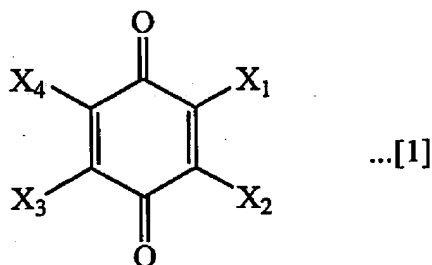
This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Withdrawn) A material for an electroluminescence element, comprising:
a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and

a compound represented by the following general formula [1]:

[General Formula 1]



(X1 to X4: hydrogen atom, halogen atom or cyano group)

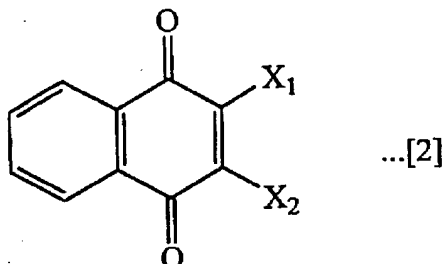
2. (Withdrawn) A material for an electroluminescence element, comprising:
a polymer compound containing a conjugate on at least one of a main chain and a side chain; and

a compound represented by the following general formula [2]:

[General Formula 2]

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(X1 and X2: hydrogen atom, halogen atom or cyano group)

3. (Currently amended) ~~A material for an electroluminescence element;~~ An electroluminescence element comprising:

an anode over a substrate;

a buffer layer over the anode;

a hole transporting layer over the buffer layer;

a light emitting layer over the hole transporting layer; and

a cathode over the light emitting layer;

wherein the buffer layer comprises a material for the electroluminescence element
comprising:

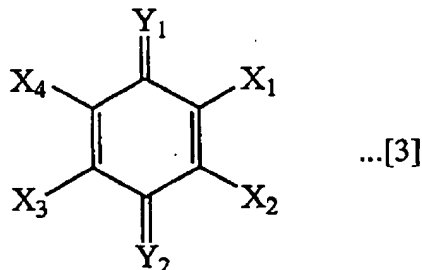
a polymer compound containing a conjugate on at least one of a main chain and a side chain; and

a compound represented by the following general formula [3]:

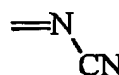
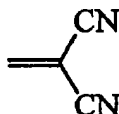
[General Formula 3]

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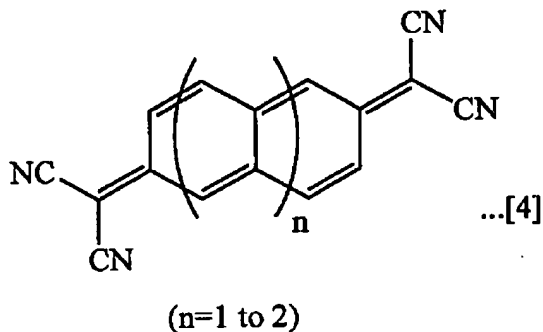
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(X1 to X4: hydrogen atom, halogen atom or alkyl group
 Y1 to Y2: dicyanomethylene group or cyanoimino group)



4. (Withdrawn) A material for an electroluminescence element, comprising:
 a polymer compound containing a conjugate on at least one of a main chain and a side chain; and
 a compound represented by the following general formula [4]:
 [General Formula 4]



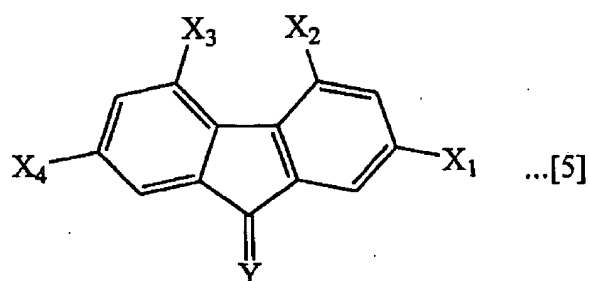
5. (Withdrawn) A material for an electroluminescence element, comprising:
 a polymer compound containing a conjugate on at least one of a main chain and a side chain; and

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a compound represented by the following general formula [5]:

[General Formula 5]



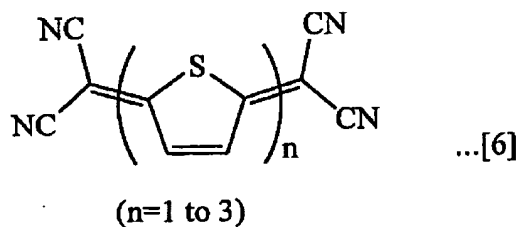
(X1 to X4: hydrogen atom or nitro group
 Y: oxygen atom or dicyanomethylene group)

6. (Withdrawn) A material for an electroluminescence element, comprising:

a polymer compound containing a conjugate on at least one of a main chain and a side chain; and

a compound represented by the following general formula [6]:

[General Formula 6]



7. (Withdrawn) A material for an electroluminescence element, comprising:

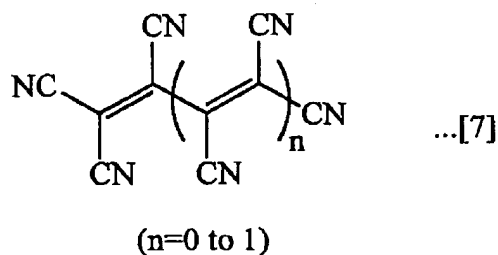
a polymer compound containing a conjugate on at least one of a main chain and a side chain; and

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a compound represented by the following general formula [7]:

[General Formula 7]

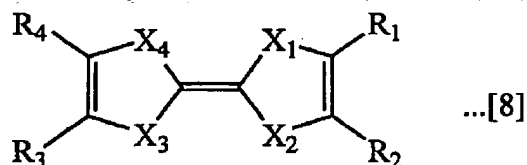


8. (Withdrawn) A material for an electroluminescence element, comprising:

a polymer compound containing a conjugate on at least one of a main chain and a side chain; and

a compound represented by the following general formula [8]:

[General Formula 8]



(X1 to X4: S, Se, or Te

R1 to R4: hydrogen atom, or alkyl group, or R1 and R2, or R3 and R4 may be connected with each other and form alkylene chain or condensed ring)

9. (Withdrawn) A material for an electroluminescence element, comprising:

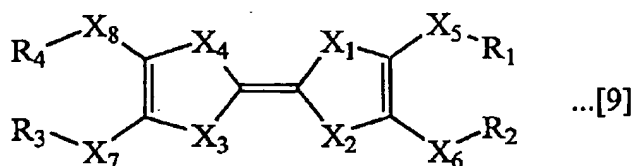
a polymer compound containing a conjugate on at least one of a main chain and a side chain; and

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a compound represented by the following general formula [9]:

[General Formula 9]



(X1 to X8: S, Se, or Te

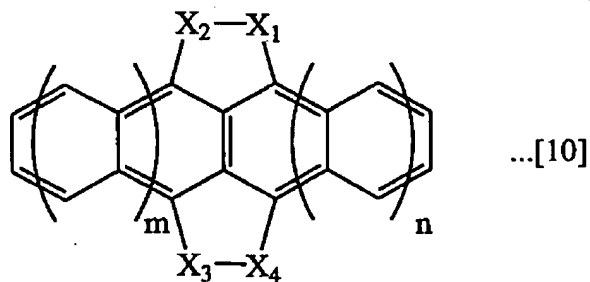
R1 to R4: hydrogen atom, or alkyl group, or R1 and R2, or R3 and R4 may be connected with each other and form alkylene chain or olefin double bond)

10. (Withdrawn) A material for an electroluminescence element, comprising:

a polymer compound containing a conjugate on at least one of a main chain and a side chain; and

a compound represented by the following general formula [10]:

[General Formula 10]



(X1 to X4: S, Se, or Te
 n and m=0 to 1)

11. (Withdrawn) A material for an electroluminescence element, comprising:

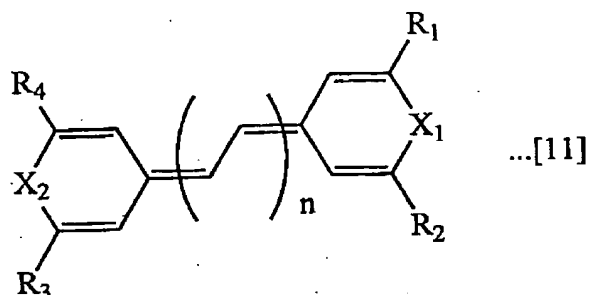
a polymer compound containing a conjugate on at least one of a main chain and a side chain; and

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a compound represented by the following general formula [11]:

[General Formula 11]



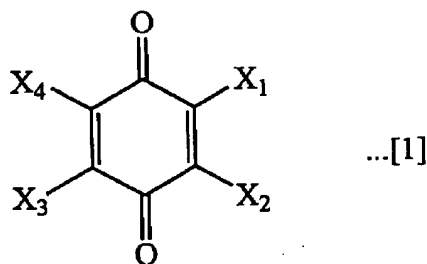
(X1 and X2: S, Se, or Te
 R1 to R4: hydrogen atom, alkyl group, aryl group
 n=0 to 1)

12. (Withdrawn) An electroluminescence element comprising:
 an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer
 layer is in contact with the anode, and the buffer layer comprising a material for the
 electroluminescence element comprising:

polymer compound containing a conjugate on at least one of a main chain and a
 side chain thereof; and

a compound represented by the following general formula [1]:

[General Formula 1]



(X1 to X4: hydrogen atom, halogen atom or cyano group).

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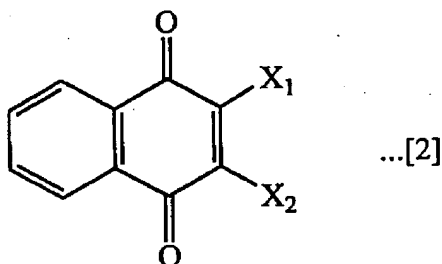
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13. (Withdrawn) An electroluminescence element comprising:
an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer layer is in contact with the anode, and the buffer layer comprising a material for the electroluminescence element comprising:

a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and

a compound represented by the following general formula [2]:

[General Formula 2]



(X1 and X2: hydrogen atom, halogen atom or cyano group).

14. (Previously Presented) An electroluminescence element comprising:
an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer layer is in contact with the anode, and the buffer layer comprises a material for the electroluminescence element comprising:

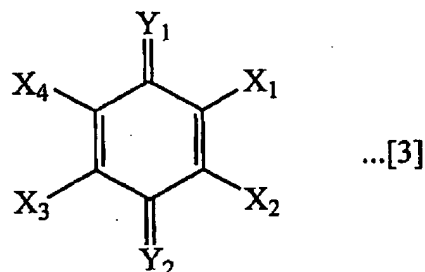
a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and

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a compound represented by the following general formula [3]:

[General Formula 3]



(X1 to X4: hydrogen atom, halogen atom or alkyl group
 Y1 to Y2: dicyanomethylene group or cyanoimino group)

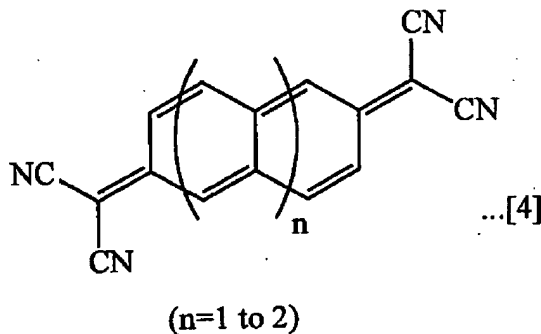


15. (Withdrawn) An electroluminescence element comprising:
 an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer layer is in contact with the anode, and the buffer layer comprising a material for the electroluminescence element comprising:

a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and

a compound represented by the following general formula [4]:

[General Formula 4]



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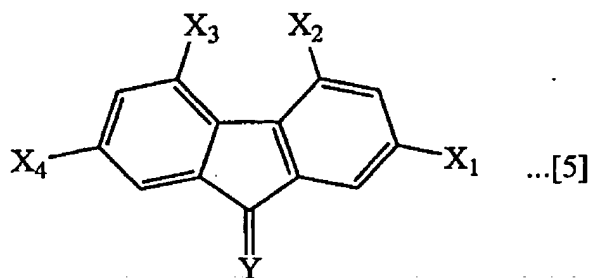
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16. (Withdrawn) An electroluminescence element comprising:
an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer layer is in contact with the anode, and the buffer layer comprising a material for the electroluminescence element comprising:

a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and

a compound represented by the following general formula [5]:

[General Formula 5]



(X1 to X4: hydrogen atom or nitro group
Y: oxygen atom or dicyanomethylene group)

17. (Withdrawn) An electroluminescence element comprising:
an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer layer is in contact with the anode, and the buffer layer comprising a material for the electroluminescence element comprising:

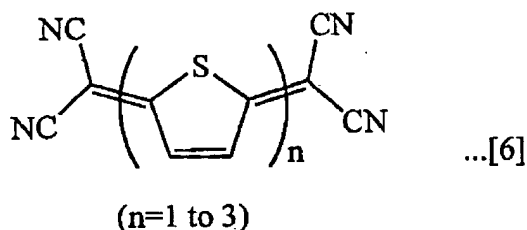
a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and

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a compound represented by the following general formula [6]:

[General Formula 6]

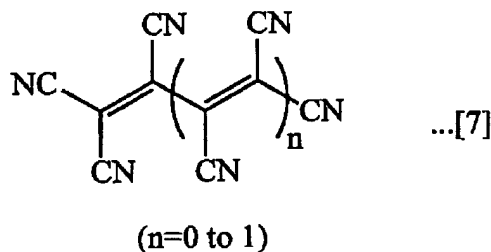


18. (Withdrawn) An electroluminescence element comprising:
 an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer layer is in contact with the anode, and the buffer layer comprising a material for the electroluminescence element comprising:

a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and

a compound represented by the following general formula [7]:

[General Formula 7]



19. (Withdrawn) An electroluminescence element comprising:
 an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer layer is in contact with the cathode, and the buffer layer comprising a material for the electroluminescence element comprising:

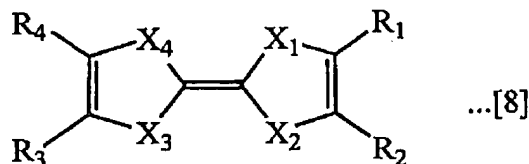
a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and

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a compound represented by the following general formula [8]:

[General Formula 8]



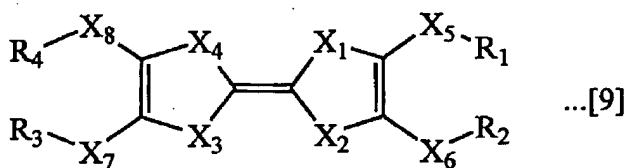
(X1 to X4: S, Se, or Te
 R1 to R4: hydrogen atom, or alkyl group, or R1 and R2, or R3
 and R4 may be connected with each other and form alkylene
 chain or condensed ring)

20. (Withdrawn) An electroluminescence element comprising:
 an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer
 layer is in contact with the cathode, and the buffer layer comprising a material for the
 electroluminescence element comprising:

a polymer compound containing a conjugate on at least one of a main chain and a
 side chain thereof; and

a compound represented by the following general formula [9]:

[General Formula 9]



(X1 to X8: S, Se, or Te
 R1 to R4: hydrogen atom, or alkyl group, or R1 and R2, or R3
 and R4 may be connected with each other and form alkylene
 chain or olefin double bond)

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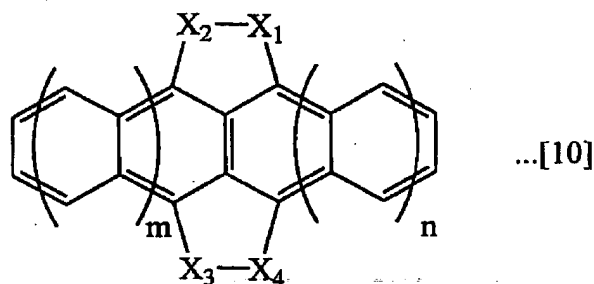
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21. (Withdrawn) An electroluminescence element comprising:
 an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer layer is in contact with the cathode, and the buffer layer comprising a material for the electroluminescence element comprising:

a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and

a compound represented by the following general formula [10]:

[General Formula 10]



(X1 to X4: S, Se, or Te
 n and m=0 to 1)

22. (Withdrawn) An electroluminescence element comprising:
 an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer layer is in contact with the cathode, and the buffer layer comprising a material for the electroluminescence element comprising:

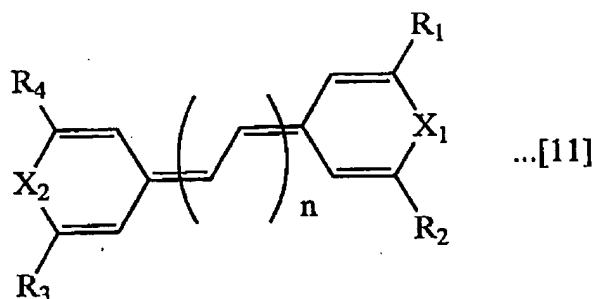
a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and

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a compound represented by the following general formula [11]:

[General Formula 11]



(X1 and X2: S, Se, or Te
 R1 to R4: hydrogen atom, alkyl group, aryl group
 n=0 to 1)

23. (Previously Presented) A material for an electroluminescence element according to claim 3, wherein the polymer compound containing the conjugate on the main chain or the side chain thereof has redox properties.

24. (Previously Presented) A material for an electroluminescence element according to claim 3, wherein the polymer compound containing the conjugate on the main chain or the side chain thereof comprises emeraldine base polyaniline.

25. (Previously Presented) An electroluminescence element according to claim 14, wherein the polymer compound containing the conjugate on the main chain or the side chain thereof has redox properties.

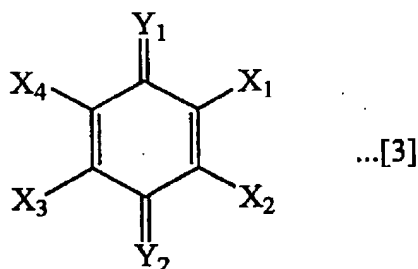
26. (Previously Presented) An electroluminescence element according to claim 14, wherein the polymer compound containing the conjugate on the main chain or the side chain thereof comprises emeraldine base polyaniline.

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27. (Previously Presented) An electroluminescence element comprising:
 an anode; a buffer layer; an electroluminescence layer; and a cathode, wherein the buffer layer comprises a material for the electroluminescence element comprising:
 a polymer compound containing a conjugate on at least one of a main chain and a side chain thereof; and
 a compound represented by the following general formula [3]:

[General Formula 3]



(X1 to X4: hydrogen atom, halogen atom or alkyl group
 Y1 to Y2: dicyanomethylene group or cyanoimino group)



28. (Previously Presented) An electroluminescence element according to claim 27, wherein the polymer compound containing the conjugate on the main chain or the side chain thereof has redox properties.

29. (Previously Presented) An electroluminescence element according to claim 27, wherein the polymer compound containing the conjugate on the main chain or the side chain thereof comprises emeraldine base polyaniline.

30. (Previously Presented) An electroluminescence element comprising:
 an anode over a substrate;
 a buffer layer over the anode;

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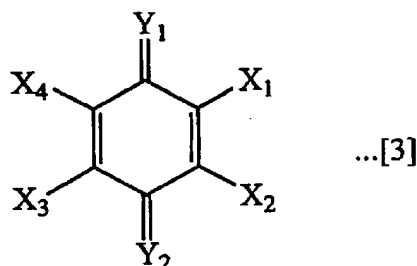
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an electroluminescence layer over the buffer layer; and
 a cathode over the electroluminescence layer,
 wherein the buffer layer comprises a material for the electroluminescence element
 comprising:

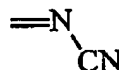
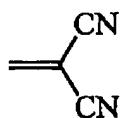
a polymer compound containing a conjugate on at least one of a main chain and a
 side chain thereof; and

a compound represented by the following general formula [3]:

[General Formula 3]



(X1 to X4: hydrogen atom, halogen atom or alkyl group
 Y1 to Y2: dicyanomethylene group or cyanoimino group)



31. (Previously Presented) An electroluminescence element according to claim 30,
 wherein the polymer compound containing the conjugate on the main chain or the side chain
 thereof has redox properties.

32. (Previously Presented) An electroluminescence element according to claim 30,
 wherein the polymer compound containing the conjugate on the main chain or the side chain
 thereof comprises emeraldine base polyaniline.